

Ex 11B (2, 3, 5, 7, 10, 12, 17)

(2) Sub $P(6, 5)$ into $y = 2x - 3$

$$\text{L.H.S.} = y = 5$$

$$\text{R.H.S.} = 2x - 3 = 2 \times 6 - 3 = 9$$

$$\therefore \text{L.H.S.} \neq \text{R.H.S.}$$

$\therefore P(6, 5)$ does not lie on the graph of $y = 2x - 3$

(3) Sub $Q(2, 3)$ into $2y = 5x - 4$

$$\text{L.H.S.} = 2y = 2 \times 3 = 6$$

$$\text{R.H.S.} = 5x - 4 = 10 - 4 = 6$$

$$\therefore \text{L.H.S.} = \text{R.H.S.}$$

$\therefore Q(2, 3)$ lies on the graph

(5) Sub $P(0, 2)$ into $y = \frac{x}{2} + 2$

$$\text{L.H.S.} = 2$$

$$\text{R.H.S.} = \frac{0}{2} + 2 = 2$$

$$\text{L.H.S.} = \text{R.H.S.}$$

Sub $Q(-1, -2)$ into $y = \frac{x}{2} + 2$

$$\text{L.H.S.} = -2$$

$$\text{R.H.S.} = \frac{-1}{2} + 2 = -\frac{1}{2} + 2 = \frac{3}{2}$$

$$\text{L.H.S.} \neq \text{R.H.S.}$$

Sub $R(3, 3\frac{1}{2})$ into $y = \frac{x}{2} + 2$

$$\text{L.H.S.} = 3\frac{1}{2} = 3.5$$

$$\text{R.H.S.} = \frac{3}{2} + 2 = 1\frac{1}{2} + 2 = 3.5$$

$$\text{L.H.S.} = \text{R.H.S.}$$

5. Continue ...

Sub $S(-2, 1)$ into $y = \frac{x}{2} + 2$

$$\text{L.H.S.} = 1$$

$$\text{R.H.S.} = \frac{-2}{2} + 2 = -1 + 2 = 1$$

As a conclusion, P, R and Q lie on the graph of $y = \frac{x}{2} + 2$

(7) $\therefore H(h, 3)$ lies on the graph $y = 4x - 5$

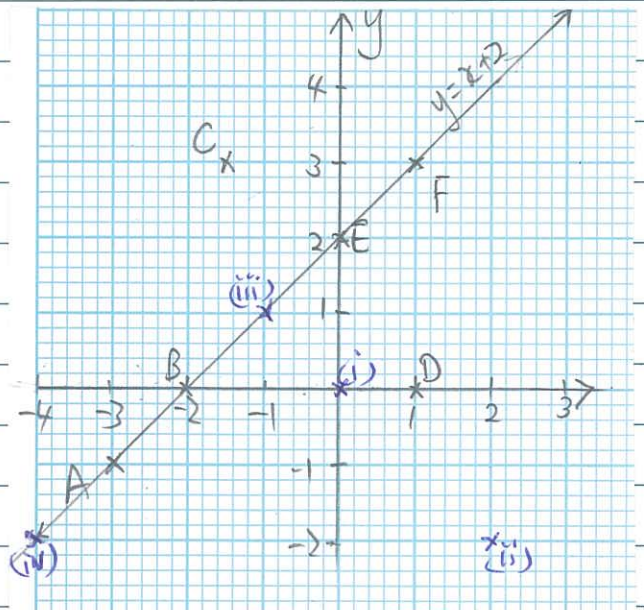
$$\therefore 3 = 4h - 5$$

$$3 + 5 = 4h$$

$$4h = 8$$

$$h = 2$$

(10)



a) From the graph, A, B, E, F lie on the graph of $y = \frac{x}{2} + 2$

ii) C, D do not lie on the graph

b) From the graph (iii), (iv) lies on the graph
By calculations (v), (vi) also lie on the graph

10) Continue ...

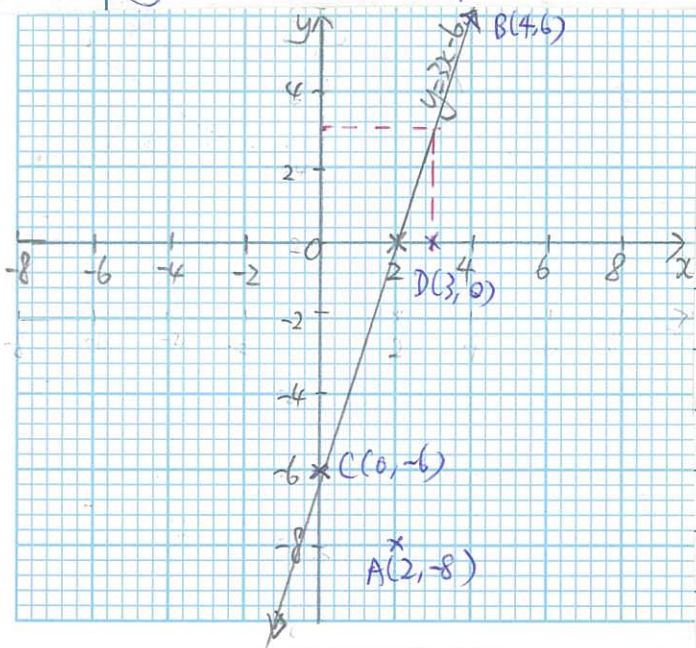
Sub (iv) (4, 6) into $y = x + 2$
 R.H.S. = $4 + 2 = 6 =$ L.H.S.

Sub (vi) (9, 11) into $y = x + 2$
 R.H.S. = $9 + 2 = 11 =$ L.H.S.

∴ As a conclusion, points (iii), (iv), (v), (vi) lie on the graph

12) $y = 3x - 6$ (from $x = -2$ to $x = 6$)

x	2	0	-1
y	0	-6	-9



b) on the graph

c) From the graph, point C and B lie on the graph.

d) From the graph, when $x = y = 3$, $x = 3$
 ∴ $p = 3$

e) ∵ $Q(-1.5, q)$ lies on $y = 3x - 6$

$$\therefore q = 3(-1.5) - 6 = -4.5 - 6 = -10.5$$

17)

a) Let x be the number of brand A
 and y be the number of brand B

$$6x + 4y = 36$$

$$3x + 2y = 18$$

b) $3x + 2y = 18$

x	0	6	4
y	9	0	3

$$3(0) + 2y = 18$$

$$y = \frac{18-0}{2} = 9$$

$$3x + 2(0) = 18$$

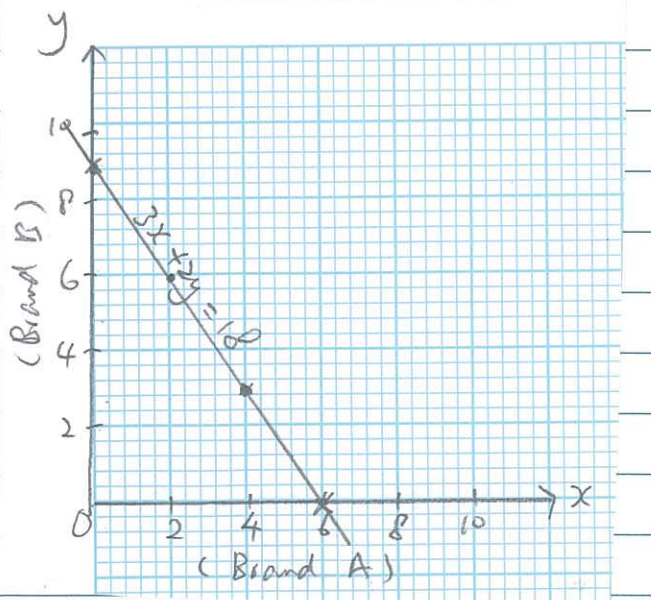
$$3x = (18-0) \div 3$$

$$x = 6$$

$$3x + 2(3) = 18$$

$$x = (18-6) \div 3$$

$$x = 4$$



From the graph above, we find 4 possible answer
 Elaine bought 6 brand A, 9 brand B,
 4 brand A and 3 brand B
 and 2 brand A and 6 brand B //